SEQ ID NO: 1

Information for SEQ ID NO: 1

Length: 26

Type: Peptide

SEQ ID NO 1:

Gly His His Pro His Gly His His Pro His Gly His His Pro His Gly

1 5 10 15

His His Pro His Gly His His Pro His Gly

20 25--

IN THE CLAIMS:

Please cancel claims 1 and 32-48 without prejudice.

Please amend the claims as follows:

In claim 51, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 53, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 55, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 56, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 57, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 60, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 61, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 62, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 63, line 1, please replace the phrase "claim 49" with --claim 50--.

In claim 72, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 74, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 75, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 76, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 79, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 80, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 81, line 1, please replace the phrase "claim 64" with --claim 65--.

In claim 88, line 1, please replace the phrase "claim 86" with --claim 87--.

In claim 89, line 1, please replace the phrase "claim 86" with --claim 87--.

49. (Once amended) A method of desorbing an analyte from a probe surface comprising the steps of:

(a) providing a probe that is removably insertable into a mass spectrometer, the probe having a surface for presenting the analyte to an energy source that emits energy capable of desorbing and ionizing the analyte from the probe for analyte detection, wherein at least the surface comprises a non-metallic-material, and wherein the analyte is on the probe surface; and

(b) exposing the analyte to energy from the energy source, whereby the analyte is desorbed and ionized.

50. (Once amended) The method of claim 49 wherein the energy source emits laser light that desorbs and ionizes the analyte to produce an ion.

52. (Once amended) The method of claim [49] 50 wherein the probe surface comprises an array of locations, each location having at least one analyte deposited thereon; and

step (b) comprises desorbing and ionizing a first analyte from a first location in the array; and

wherein the method further comprises the step of (c) desorbing and ionizing a second analyte, from a second location in the array.

54. (Once amended) The method of claim [49] 50 wherein the surface comprises [metal,] metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

58. (Once amended) The method of claim [49] 50 wherein the probe further comprises stainless steel and wherein the surface comprises a substantially porous material.

59. (Once amended) The method of claim [49] 50 wherein the probe further comprises stainless steel and wherein the surface comprises a substantially non-porous material.

64. (Once amended) A system for detecting an analyte comprising:

a removably insertable probe having a surface for presenting the analyte to an energy source that emits energy capable of desorbing and ionizing the analyte from the probe, wherein at least the surface comprises a non-metallic material, and an analyte on the surface;

an energy source that directs energy to the probe surface for desorbing and ionizing the analyte; and

a detector in communication with the probe surface that detects the desorbed analyte.

65. (Once amended) The system of claim 64 which is a laser desorption mass spectrometer wherein:

the energy source emits laser light that desorbs and ionizes the analyte to produce an ion, the system further comprises means for accelerating the ion to the detector,

the detector detects the ion, and

the system further comprises means for determining the mass of the ion.

73. (Once amended) The system of claim [64] 65 wherein the surface comprises [metal,] metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

77. (Once amended) The system of claim [64] 65 wherein the probe further comprises stainless steel and wherein the surface comprises a substantially porous material.

78. (Once amended) The system of claim [64] 65 wherein the probe further comprises stainless steel and wherein the surface comprises a substantially non-porous material.

86. (Once amended) A method for detecting an analyte comprising the steps of:

a) providing a system comprising:

(1) a removably insertable probe having a surface for presenting the analyte to an energy source that emits energy capable of desorbing and ionizing the analyte from the probe, wherein at least the surface comprising a non-metallic material, and an analyte on the surface;

(2) an energy source that directs energy to the probe surface for desorbing and ionizing the analyte; and

(3) a detector in communication with the probe surface that detects the desorbed and ionized analyte;

b) desorbing and ionizing at least a portion of the analyte from the surface by exposing the analyte to the energy; and

c) detecting the desorbed and ionized analyte with the detector.

87. (Once amended) The method of claim 86 wherein the system is a laser desorption mass spectrometer wherein the energy source emits laser light that desorbs and ionizes the analyte to produce an ion, the detector detects the ion and the system further comprises means for accelerating the ion to the detector, and the method further comprises determining the mass of the ion.

90. (Once amended) The method of claim [86] 87 wherein the probe surface comprises an array of locations, each location having at least one analyte deposited thereon; and step (b) comprises desorbing and ionizing a first analyte from a first location in the array;

and wherein the method further comprises the step of:

d) desorbing and ionizing a second analyte from a second location in the array; and

e) detecting the desorbed and ionized second analyte with the detector.

92. (Once amended) The method of claim 87 wherein the surface comprises [metal,] metal coated with a synthetic polymer, glass, ceramic, a synthetic polymer or a mixture thereof.

96. (Once amended) The method of claim 87 wherein the probe further comprises stainless steel and wherein the surface comprises a substantially porous material.

97. (Once amended) The method of claim 87 wherein the probe further comprises stainless steel and wherein the surface comprises a substantially non-porous material.

Please add the following new claims.

102. (New) The method of claim 62 wherein the synthetic polymer comprises polystyrene, polypropylene, polyethylene, polycarbonate, or biopolymers.

103. (New) The system of claim 81 wherein the synthetic polymer comprises polystyrene, polypropylene, polyethylene, polycarbonate, or biopolymers.

104. (New) The method of claim 100 wherein the synthetic polymer comprises polystyrene, polypropylene, polyethylene, polycarbonate, or biopolymers.

105. (New) The method of claim 50, wherein the analyte is a biomolecule.

106. (New) The method of claim 50, wherein the analyte is a biomolecule from an undifferentiated sample.

107. (New) The method of claim 50, wherein the analyte is a protein, a peptide or a nucleic acid.

108. (New) The system of claim 65, wherein the analyte is a biomolecule.

109. (New) The system of claim 65, wherein the analyte is a biomolecule from an undifferentiated sample.